

10/588903

IAP11 Rec'd PCT/PTO 09 AUG 2006

121

SEQUENCE LISTING

<110> Nihon University

<120> The CD20 gene of dog

<130> NICHIA

<140> 2004-0033810

<141> 2004-02-10

<160> 20

<170> PatentIn Ver. 2.1

<210> 1

<211> 297

<212> PRT

<213> Dog

<220>

<223> Inventor: Kano, Rui; Inoue, Chika.

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Met Thr Thr Pro Arg Asn Ser Met Ser Gly Thr Leu Pro Val Asp Pro  
1 5 10 15

Met Lys Ser Pro Thr Ala Met Tyr Pro Val Gln Lys Ile Ile Pro Lys  
20 25 30

Arg Met Pro Ser Val Val Gly Pro Thr Gln Asn Phe Phe Met Arg Glu  
35 40 45

Ser Lys Thr Leu Gly Ala Val Gln Ile Met Asn Gly Leu Phe His Ile  
50 55 60

Ala Leu Gly Ser Leu Leu Met Ile His Thr Asp Val Cys Ala Pro Ile  
65 70 75 80

Cys Ile Thr Met Trp Tyr Pro Leu Trp Gly Gly Ile Met Phe Ile Ile  
85 90 95

Ser Gly Ser Leu Leu Ala Ala Ala Asp Lys Asn Pro Arg Lys Ser Leu  
100 105 110

Val Lys Gly Lys Met Ile Met Asn Ser Leu Ser Leu Phe Ala Ala Ile  
115 120 125

Ser Gly Ile Ile Phe Leu Ile Met Asp Ile Phe Asn Ile Thr Ile Ser  
130 135 140

His Phe Phe Lys Met Glu Asn Leu Asn Leu Ile Lys Ala Pro Met Pro  
145 150 155 160

Tyr Val Asp Ile His Asn Cys Asp Pro Ala Asn Pro Ser Glu Lys Asn  
165 170 175

Ser Leu Ser Ile Gln Tyr Cys Gly Ser Ile Arg Ser Val Phe Leu Gly  
180 185 190

Val Phe Ala Val Met Leu Ile Phe Ala Phe Phe Gln Lys Leu Val Thr  
195 200 205

Ala Gly Ile Val Glu Asn Glu Trp Lys Lys Leu Cys Ser Lys Pro Lys  
210 215 220

Ser Asp Val Val Val Leu Leu Ala Ala Glu Glu Lys Lys Glu Gln Pro  
225 230 235 240

Ile Glu Thr Thr Glu Glu Met Val Glu Leu Thr Glu Ile Ile Ala Ser  
245 250 255

Gln Pro Lys Lys Glu Glu Asp Ile Glu Ile Pro Val Gln Glu Glu Glu  
260 265 270

Gly Glu Leu Glu Ile Asn Phe Ala Glu Pro Pro Gin Glu Gin Glu Ser  
 275 280 285

Ser Pro Ile Glu Asn Asp Ser Ile Pro  
 290 295

<210> 2  
 <211> 44  
 <212> PRT  
 <213> Dog

<220>  
 <223> Inventor: Kano, Rui; Inoue, Chika.

<400> 2  
 Thr Ile Ser His Phe Phe Lys Met Glu Asn Leu Asn Leu Ile Lys Ala  
 1 5 10 15

Pro Met Pro Tyr Val Asp Ile His Asn Cys Asp Pro Ala Asn Pro Ser  
 20 25 30

Glu Lys Asn Ser Leu Ser Ile Gin Tyr Cys Gly Ser  
 35 40

<210> 3  
 <211> 1238  
 <212> DNA  
 <213> Dog

<220>  
 <223> Inventor: Kano, Rui; Inoue, Chika.

<400> 3  
 atcagccact cggccctaagg ccacagacac tcaggagttc agagggttag atgacaacac 60  
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 atcctgttca aaaaataatt cccaaaagga tgccttcagt ggtggccct acacaaaact 180  
 tcttccttag ggaactctaag acactggggg ctgtccatgt tatgaatggg ctcttcacac 240  
 ttgcctttagg cagccctctg atgatccaca cggatgtctg tgcccccattc tgatataacta 300  
 tttggtagcc tctctggggg ggcattatgt tcattatcc tggatcactc ctggcagcag 360  
 cggacaaaaaa cccccaggaag agtttggca aaggaaaaat gataatgac tcattgagcc 420  
 tctttgtcgc catttctgga ataattttt tgatcatgga catatttaat attaccattt 480  
 cccattttt taaaatggag aatttgaatc ttatcaaagc tcccatgcca tatgttgaca 540  
 tacacaactg tgaccctatc aaccctctg agaaaaactc ttatctata caatatttg 600  
 gcagcatacg atctgttttc ttggcggtt ttgtgtgtat gotgatctt gccttctcc 660  
 agaaacttgt gacagctggc atttttggaa atgaatggaa aaaaactgtgc tctaaaccta 720  
 aatctgtatgt agttttctg ttagctgtc agaaaaaaa agaacagccg attgaaacaa 780  
 cagaagaaaat ggttgagctg actgaaaatag ctcccaacc aaagaaaagaa gaagacattg 840  
 aaattttcc agtccaaagaa gaagaaggaaat aacttttgoa gaacctcccc 900  
 aggaggcagga atcttcacca atagaaaacg acagcatccc ttaagtaacg tttttcttcc 960  
 tttttcttctt tcttaggcgt tagtgttcc acgtttcaag agacatatacc accctgttt 1020  
 cctgaggccc cctgcaggtg ggccctctcc atgtgtctct ctggcccttg catggatgtc 1080  
 ccacagctcg cttggcgttag ctgcctctct ttctctcatg cagaggatgc agccattgca 1140  
 ggaggcttaag tcggcagct tatttacattt acagcaaggc agactgtaat ttctcactaa 1200  
 actttccctt ggataaagct taaaaaaaaaaa aaaaaaaaaa 1238

<210> 4  
 <211> 1238  
 <212> RNA  
 <213> Dog

<220>  
 <223> Inventor: Kano, Rui; Inoue, Chika.

<400> 4  
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 ccagaaauuc aaugagugga acccucccg ugauccuaau gaaaagccu acugccauu 120  
 auccuguuca aaaaaaaaaaa cccaaaagga ugccuucagu ggugggccc acacaaaacu 180  
 ucuucaugag ggaauccuaag acacuggggg cuguccagau uaugaauugg cucuuccaca 240  
 uugccuagg cagccuccug augauucaca cggauugucug ugcccacu uguuaacua 300  
 ugugguaccc ucuuugggga ggcauuauug ucauauuuuc uggaucacuc cuggcagcag 360

cggacaaaaa ccccaggaag aguuugguca aaggaaaaau gauaaugaac ucauugagcc 420  
 ucuuugcugc caauucugga auauuuuuuu ugaucaggca cauauuuau auuaccauuu 480  
 uaccaauuuu uaaaauggag aauuugaauu uauuuuaagc ucccaugccca uauguugaca 540  
 uacacaacug ugaccagcua aacccucug agaaaaaacuc uuaaucuua caauauugug 600  
 gcagcauacg aucuguuuuc uugggcguuu uugcugugau gcugauuuu gccuuucuucc 660  
 agaaacuugu gacagcuggc auuguugaga augaauggaa aaaacugugc ucuuaaccua 720  
 aaucugaugu aguuguucug uuagcugcug aagaaaaaaa agaacagccg auugaaacaa 780  
 cagaagaaaa gguugagcug acugaaaaug ciuucccaacc aaagaaaagaa gaagacauug 840  
 aauuauucc aguccaagaa gaagaagggg acugaaaaau aaacuuugca gaaccucccc 900  
 aggagcagga aucsucacca auagaaaacg acagcauccc uuaaguaacg uuuuuuucuuc 960  
 uguuuuccuu ucuuaggcgu uaguguucac agcuuucaag agacauaucc accccuguuu 1020  
 ccugaggccc ccugcaggug ggccuccucc augugucu cuggccuuug cauggaguga 1080  
 ccacagcugc cuugcugcuaug cucgcucuuc uucucucaug cagaggaugc agccauugca 1140  
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<210> 5  
 <211> 132  
 <212> DNA  
 <213> Dog

<220>  
 <223> Inventor: Kano, Rui; Inoue, Chika.

<400> 5  
 accatttccc attttttaa aatggagaat ttgaatctta ttaaagctcc catccatat 60  
 gttgacatac acaactgtga cccagctaac ccctctgaga aaaactcttt atctatacaa 120  
 tattgtggca gc 132

<210> 6  
 <211> 43  
 <212> DNA  
 <213> Artificial Sequence

<220>  
 <223> Description of Artificial Sequence:synthetic sequence

<220>  
 <223> Inventor: Kano, Rui; Inoue, Chika.

<400> 6  
 agagagagag agaactatgc tcgagttttt tttttttttt ttt 43

<210> 7  
 <211> 23  
 <212> DNA  
 <213> Artificial Sequence

<220>  
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<220>  
 <223> Inventor: Kano, Rui; Inoue, Chika.

<400> 7  
 ctctttgctg ccatttctgg aat 23

<210> 8  
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 <212> DNA  
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<220>  
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<220>  
 <223> Inventor: Kano, Rui; Inoue, Chika.

<400> 8	
tggaagaagg caaagatcg cat	23
<210> 9	
<211> 18	
<212> DNA	
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tgtaaaacga cggccagt	18
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<223> Inventor: Kano, Rui; Inoue, Chika.	
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<223> Inventor: Kano, Rui; Inoue, Chika.	
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<210> 13	
<211> 32	
<212> DNA	
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<220>  
<223> Description of Combined DNA/RNA Molecule:synthetic sequence

<220>  
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<220>  
<223> Universal Amplification Primer

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cuacuacuac uaggccacgc gtcgactagt ac

32

<210> 14  
<211> 20  
<212> DNA  
<213> Artificial Sequence

<220>  
<223> Description of Artificial Sequence:synthetic sequence

<220>  
<223> Inventor: Kano, Rui; Inoue, Chika.

<400> 14  
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<220>  
<223> Inventor: Kano, Rui; Inoue, Chika.

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<211> 23  
<212> DNA  
<213> Artificial Sequence

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<220>  
<223> Inventor: Kano, Rui; Inoue, Chika.

<400> 16  
ttggaaagg caaagatcg cat

23

<210> 17  
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<220>  
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<220>  
<223> Anchor Primer

<220>  
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<400> 17  
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<220>  
<223> Inventor: Kano, Rui; Inoue, Chika.

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<210> 19  
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<223> Inventor: Kano, Rui; Inoue, Chika.

<400> 19  
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<220>  
<223> Inventor: Kano, Rui; Inoue, Chika.

<400> 20  
tctattgggt aagattcctg 20